Supplemental Amendment Dated: June 21, 2007

Reply to Office Action of May 17, 2007

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

<u>Listing of the Claims</u>:

1. (Currently Amended) An orthotic device to be worn by a user, comprising:

a base unit having an elongated support member, at least one support pad adjacently positioned on and attached to said support member, a fastener extending between said support member and said support pad, and an aperture in said support member capable of receiving a connector therein;

said base unit conforming substantially about a forearm of the user;

a metacarpal unit having a metacarpal internal pad positioned on and attached to an external casing and an attachment member between said external casing and said metacarpal internal pad; and

a hinge system connecting said base unit to said metacarpal unit, said hinge system having a shell with a shell interior pad positioned on said shell and a plurality of apertures in said shell each capable of accepting a connector therein, said hinge system movably connecting the metacarpal unit to the bone base unit when worn by the user.

2. (Cancelled)

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3. (Previously Amended) The orthotic device as recited in claim 1, wherein

said elongated support member has at least one recess formed therein allowing

said fastener to access said support pad.

4. (Previously Amended) The orthotic device as recited in claim 1, wherein

said elongated support member, said shell and said external casing are each

made of a material selected from the group consisting of: epoxy matrix carbon

fiber, moldable carbon fiber, Kevlar composite material, plastic and thermoplastic

material.

5. (Previously Amended) The orthotic device as recited in claim 1, wherein

said at least one support pad, said metacarpal interior pad and said shell internal

pad being made of a material selected from the group consisting of: open cell

foam, closed cell foam, cotton, a viscoelastic polymer-gel or air filled member.

6-8. (Cancelled)

9. (Previously Amended) The orthotic device as recited in claim 1, wherein

said support pad is detachably affixed on said support member, where said

internal pad is removably attached on said external casing, and where said

interior pad is detachably fastened on said exterior shell.

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10. (Currently Amended) The orthotic device as recited in claim 1, wherein

said metacarpal unit swivels in a lateral fashion relative to said bone base unit

due to said hinge system.

11. (Previously Amended) The orthotic device as recited in claim 1, wherein

said hinge system is capable of moving said metacarpal unit to a 45° angle in an

upward extension fashion with respect to the base unit.

12. (Previously Amended) The orthotic device as recited in claim 1, wherein

said hinge system is capable of moving said metacarpal unit to a 150° angle in a

downward, flexing fashion with respect to the base unit.

13. (Original) The orthotic device as recited in claim 1, wherein said

elongated support member and said shell each have at least one stop formed

thereon, wherein each of said stop abuts one another to limit extension, flexion

and ulnar-radial deviation.

14-15. (Cancelled)

16. (Currently Amended) An orthotic device for rehabilitation of a user's

wrist, comprising:

a base unit having an elongated support member and conforming

substantially to a forearm of the user, a support pad at least partially on said

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support member, and an aperture in said support member capable of receiving a

connector therein, said elongated support member having at least one recess

formed therein allowing said fastener to access said support pad;

a metacarpal unit having a metacarpal pad at least partially on an external

casing and an attachment member between said external casing and said

metacarpal pad, the external casing configured for positioning under the dorsal

surface of the user's hand; and

a hinge system connecting said base unit to said metacarpal unit, said

hinge system having a shell with a plurality of apertures in said shell each

capable of accepting a connector therein, said hinge system movably connecting

the metacarpal unit to the bone base unit when worn by the user.

17. (Cancelled)

18. (Previously Presented) The orthotic device as recited in claim 16,

wherein said elongated support member, said shell and said casing are each

made of a material selected from the group consisting of: epoxy matrix carbon

fiber, moldable carbon fiber, Kevlar composite material, plastic and thermoplastic

material.

19. (Previously Presented) The orthotic device as recited in claim 16,

wherein said support pad and said metacarpal interior pad each being made of a

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material selected from the group consisting of: open cell foam, closed cell foam,

cotton, a viscoelastic polymer-gel or air filled member.

20. (Previously Presented) The orthotic device as recited in claim 16, where

said support pad is detachably affixed on said support member, and said

metacarpal pad is removably attached on said external casing.

21. (Previously Presented) The orthotic device as recited in claim 16,

wherein said metacarpal unit swivels in a lateral fashion in relation to said hinge

system.

22. (Previously Presented) The orthotic device as recited in claim 1, wherein

said elongated support member and said shell each have at least one stop

thereon to limit extension.

23. (Previously Amended) An orthotic device to be worn by a user,

comprising:

a base unit having an elongated support member and a support pad at

least partially on said support member, a fastener extending between said

support member and said support pad, and a plurality of apertures in said

support member each capable of receiving a connector therein;

a metacarpal unit having a metacarpal pad at least partially on an external casing and an attachment member between said external casing and said metacarpal pad; and

a hinge system connecting said base unit to said metacarpal unit, said

hinge system having a shell and a plurality of apertures in said shell each

capable of accepting a corresponding connector therein, and said metacarpal

unit swivels in a lateral fashion due to said hinge system, when said orthodic

device is worn by the user.

24. (Previously Presented) The orthotic device as recited in claim 23, where

said support pad is detachably affixed on said support member, and said

metacarpal pad is removably attached on said external casing.

25. (Previously Presented) The orthotic device as recited in claim 23,

wherein said elongated support member and said shell each have at least one

stop formed thereon to limit extension.

26. (Previously Presented) The orthotic device as recited in claim 23,

wherein said hinge system is capable of moving up to a 45° angle in an upward

extension with respect to the base unit.

27. (Currently Amended) An orthotic device to be worn by a user,

comprising:

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a base unit having an elongated support member and a support pad at

least partially on said support member, a fastener extending between said

support member and said support pad, and a plurality of apertures in said

support member each capable of receiving a connector therein;

wherein said support pad is detachably affixed on said support member,

where said internal pad is removably attached on said external casing, and

where said interior pad is detachably fastened on said exterior shell;

a metacarpal unit having a metacarpal pad at least partially on an external

casing and an attachment member between said external casing and said

metacarpal pad;

a hinge system connecting said base unit to said metacarpal unit, said

hinge system having a shell and a plurality of apertures in said shell each

capable of accepting a corresponding connector therein, and said metacarpal

unit swivels in a lateral fashion relative to said bone base unit when worn by the

user; and

said support pad is detachably affixed on said support member, said

internal pad is removably attached on said external casing, and said interior pad

is detachably fastened on said exterior shell.

28. (Previously Amended) The orthotic device as recited in claim 27,

wherein said hinge system is capable of moving said metacarpal unit to a 45°

angle in an upward extension fashion with respect to the base unit.

29. (Previously Presented) The orthotic device as recited in claim 27, wherein said elongated support member and said shell each have at least one

stop formed thereon, wherein each of said stop abuts one another to limit

extension, flexion and ulnar-radial deviation.

30. (Previously Amended) An orthotic device, comprising:

a base unit having an elongated support member, at least one support

pad adjacently positioned on and attached to said support member, a fastener

extending between said support member and said support pad, and an aperture

in said support member capable of receiving a connector therein;

a metacarpal unit having a metacarpal internal pad mounted onto and

projecting from an external casing and an attachment member between said

external casing and said metacarpal internal pad, the external casing configured

for positioning under the dorsal surface of the user's hand;

a hinge system connecting said base unit to said metacarpal unit, said

hinge system having a shell with a shell interior pad positioned on said shell and

a plurality of apertures in said shell each capable of accepting the connector

therein; and

said metacarpal unit swivels in a lateral fashion due to said hinge system

relative to said unit when said orthotic device is worn by the user.

31. (Previously Presented) The orthotic device as recited in claim 30,

wherein said elongated support member and said shell each have at least one

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stop formed thereon, wherein each of said stop abuts one another to limit

extension, flexion and ulnar-radial deviation.

32. (Previously Amended) The orthotic device as recited in claim 30,

wherein said hinge system is capable of moving said metacarpal unit to a 45°

angle in an upward extension fashion with respect to the base unit.

33. (Previously Amended) The orthotic device as recited in claim 30,

wherein said hinge system is capable of moving said metacarpal unit to a 150°

angle in a downward, flexing fashion with respect to the base unit.

34. (Previously Presented) The orthotic device as recited in claim 30,

wherein said elongated support member and said shell each have at least one

stop thereon to limit extension.

35. (Previously Presented) The orthotic device as recited in claim 30, where

said support pad is detachably affixed on said support member, and said

metacarpal pad is removably attached on said external casing.